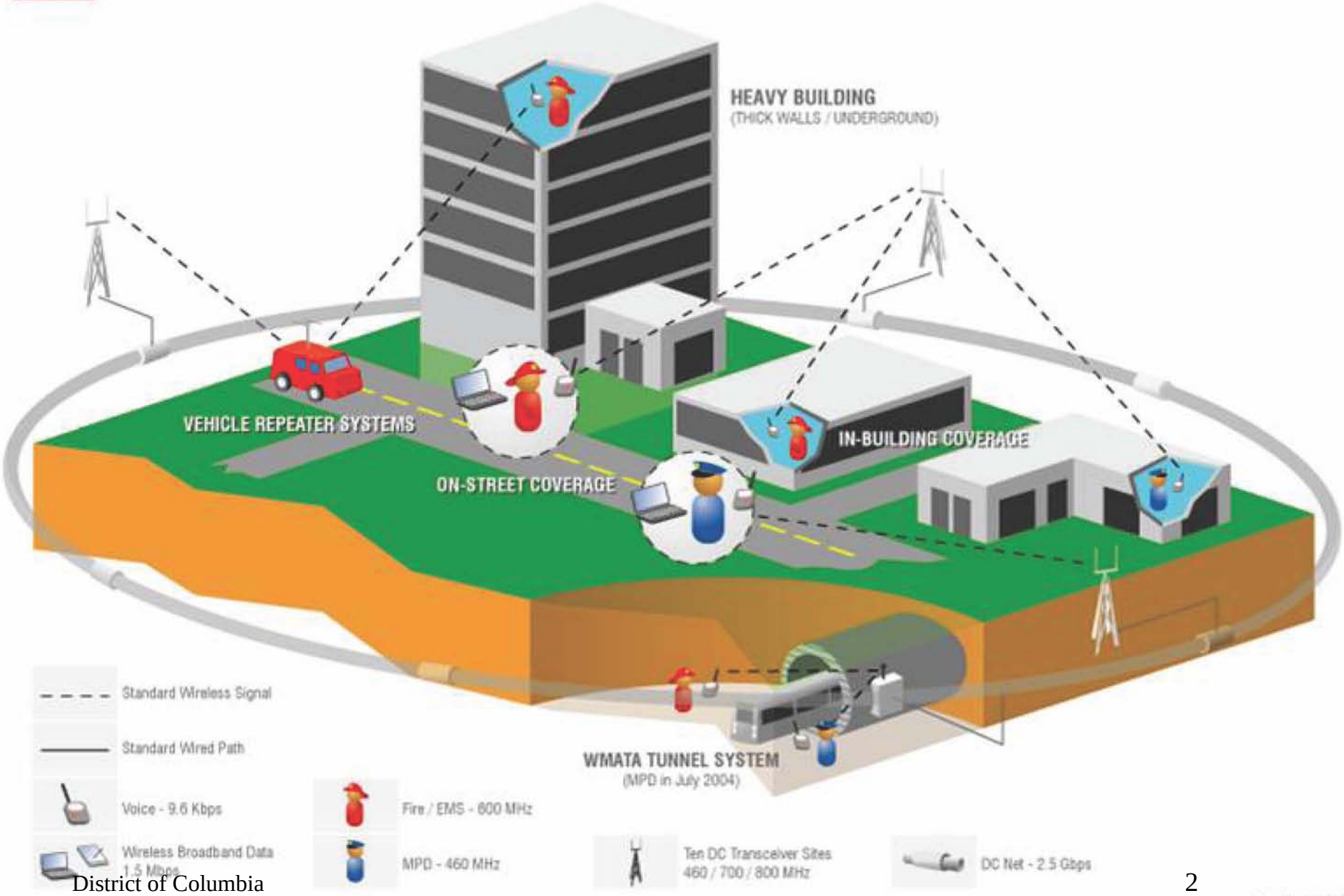
Government of the District of Columbia
Office of the Chief Technology Officer

Federal Communications Commission
July 11, 2007

Public Safety Wireless Voice and Data Communications



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RWBN Project Overview

- **The Regional Wireless Broadband Network (RWBN) is the Nation's first operational Public Safety 700 MHz high speed wireless network.**

- **Benefits of Deployment:**
  - Out-of-the-box interoperability
  - Dedication and control
  - Public safety reliability
  - High bandwidth application accessibility
  - More cost effective than commercial services
  - Potential migration path for voice communications

- **Other National 700 MHz Broadband Plans:**
  - Silicon Valley Region
  - Phoenix Region
  - San Diego Region






RWBN Demonstration

Fire Command Unit

EVDO Rev A
Video Call

RWBN
Radio Site 1

Battalion Chief Buggy

EVDO Rev A
Video Call

RWBN
Radio Site 2

DC NET

UNIFIED COMMUNICATION CENTER

Fire Command
Video Received

Battalion Buggy
Video Received

RWBN
Radio Site 1

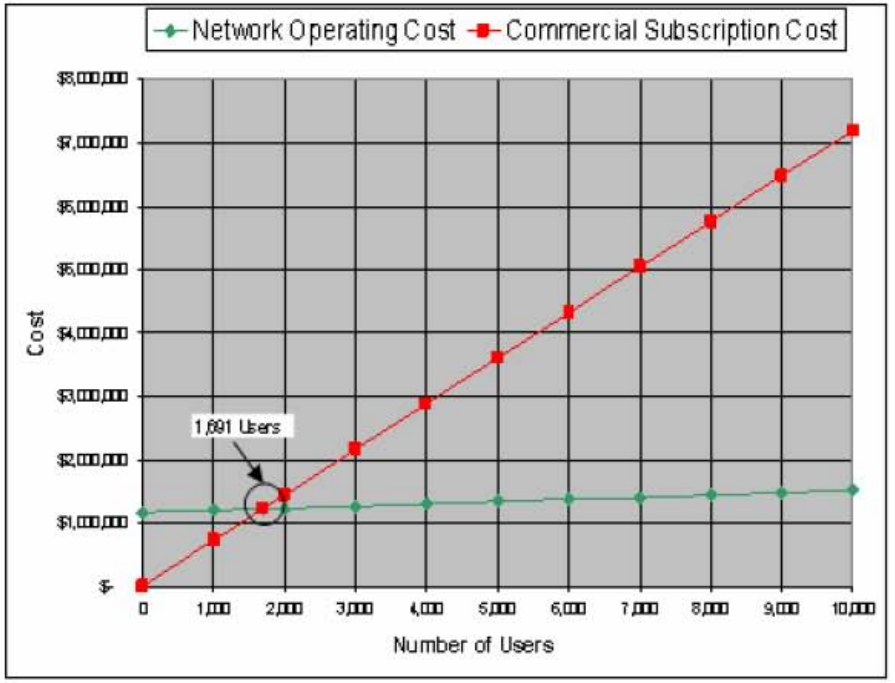
Spectrum Coalition FNPRM Comments

- Maintain the right for state and local governments to choose to be licensed to build and operate 700 MHz broadband networks **OR** choose to partner with a national public/private licensee
- Adopt an all broadband requirement for public safety in the data spectrum with the exception of border regions where complete 1.25 MHz channels are not possible,
- Allow wideband operations in the narrowband spectrum in border regions,
- Standardize on EVDO Revision A **NOW** for "Block E" and the public safety 12 MHz data spectrum. Establish a process to evaluate evolving technology every five years. Realize the following benefits:
  - Reuse of backhaul, public safety grade radio sites, lines, antennas, roam and Governance agreements and possibly dual-mode devices allowing for a smoother transition to any mass market 4G commercial solutions in the future;
  - Proven technology with an established eco-system;
  - Technology that fits in the spectrum currently allocated to Public Safety;
  - Existing commercial roaming partners
- Realign the existing public safety spectrum, consolidating NBV and separating voice and data with a 1 MHz guard band – as long as such costs are underwritten without diluting the existing sources of funding for interoperable communications,
- Adopt those elements of the Frontline proposal that would establish a new 10 MHz "E Block" of spectrum and facilitate creation of an affordable open access commercial network in that spectrum block with priority handling and features for public safety, which is also built to the common standard.
- Adopt the National Planning Committee structure to manage public safety 700 MHz broadband data interoperability.

Why a National Network is good for "SOME" but not good for "ALL" jurisdictions

Operating Cost Comparison- Single Jurisdiction

- Commercial **data-only** services for 10,000 devices equals **$7.2 million** annually.
- **Annual estimated operating costs for 10,000 users equals **$1.5 million**.
- Most major jurisdictions currently pay approximately **$5 million** annually in commercial service fees.



An Opt-in or Opt-out option is the only way to ensure that "ALL" jurisdictions will have a financial incentive to utilize the 700Mhz spectrum.

****Cost calculation assumes 15 site network, 10,000 user devices, and depreciation.**

Recommended Radio and Wireless Strategy

Goal: *Complete migration of wireless communications to broadband systems, broadband applications, and new computing platforms by 2010*

2010+

2009

Capacity Increases + Vehicular Repeaters

Field Trials Of Rugged Radio over IP Solutions

2008

Install redundant hub at UCC, add capacity to 800 MHz network

Increase Capacity At Stations & Radio Interface

MDTs and PDAs On 700 MHz

CAD Client Software, Location, VoIP, RoIP

2007

Maintain system, purchase 10% of radios annually

In-Building Coverage Sites

PC Cards & AVL

Upgrade CAD

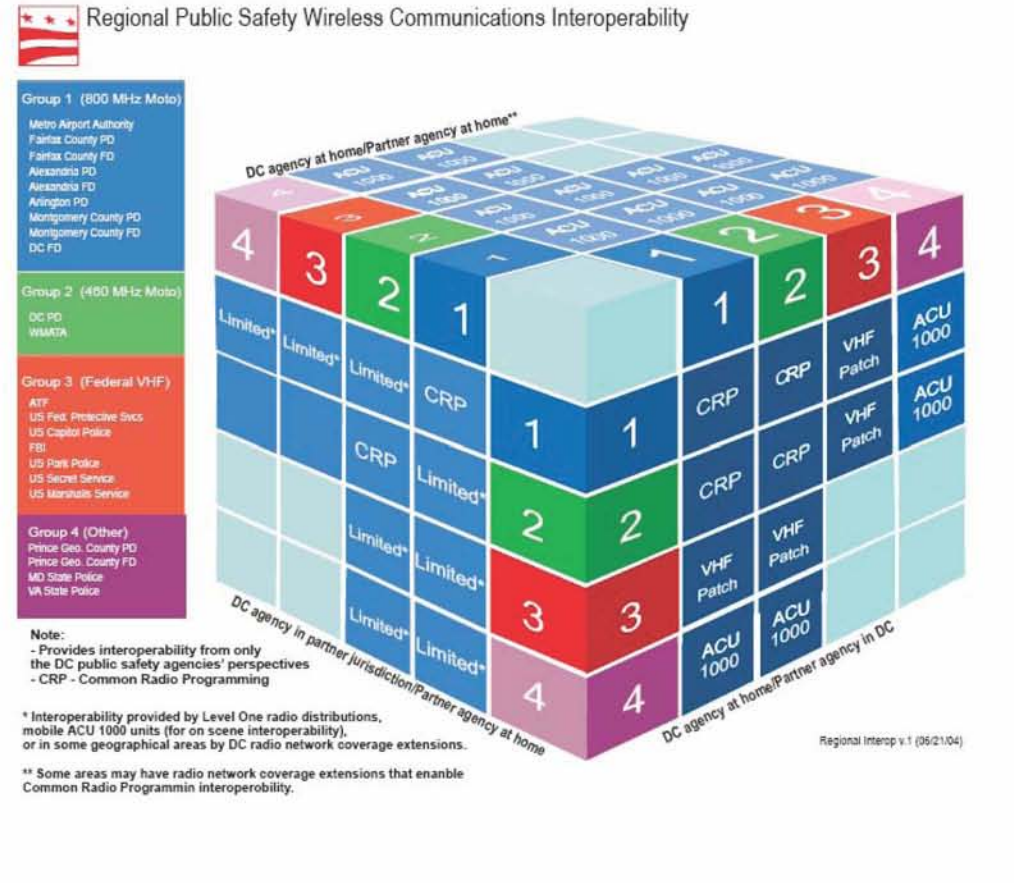
2006

VOICE (LMR)

WARN DATA PILOT (Complete)

What if we don't?

- No Data interoperability for the next 5-7 years
- Continued reliance on commercial carrier networks prone to fail during emergencies
- No affordable universal migration path for voice communications



Future Broadband Network of Networks Consortium